



# IMPACT OF ICT LEARNING ON INTELLIGENCE AND ACHIEVEMENT IN MATHEMATICS FOR THE PUPILS STUDYING AT HIGH SCHOOL LEVEL

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## ABSTRACT

The study investigated "Impact of ICT learning on pupil's intelligence and achievement for the topic in mathematics studying at high school level". The objective of the study is to find out the impact of ICT among the High School level.

This study investigates the Impact of using ICT in teaching in tertiary institutions. In institutions of high level education, the issue of utilizing modern information and communication technologies for teaching and learning is very important. This study reviews literature and gives a scholarly background to the study by reviewing some contributions made by various researchers and institutions on the concept of ICT, particularly its usage in teaching and learning in high level educational institutions. It unveils some views that people and institutions have shared globally on the adoption and integration of ICT technologies in education through surveys and other observations. This paper tells us about what is ICT what is its impact on employee and student performance, what is its history, difference between ICT learning and traditional learning, future of ICT and some facts about ICT that are collected from various websites of Internet are also included in this paper, fact show that it is growing in recent years.

A sample of 2 high schools was selected in Trichy district for this research work using the random sampling techniques. The investigator collected the reviews that are conducted in India and in abroad.

The tool for "Impact of ICT" was prepared by the investigator under the two categories "intelligence" and "achievement" Each of the item consists of 20 questions. The research findings show that the level of Impact of ICT among the High School level was high when compared with conventional talk and chalk method.

**KEYWORDS:** Impact, Intelligent, Achievement, Technology in Education, Ict, Conventional method.

## INTRODUCTION:

The destiny of country is decided in classrooms. Quality of education in schools to great extent depends on ability and motivation and involvement of the teachers, infrastructure and effective school administration. Education and society are related to each other, both are interdependent. Therefore sociologists refer school as a "miniature society". In other words school is a representative of a society. Education is important and useful to every section of the society.

## Need of the Study:

In the present digital era, the development in various aspects of computer technology has reached beyond our imagination and expectations. Even though computer has lot of applications in various field one should not forget its application in the field of education. It is very useful and helpful in teaching and learning process. They have capability of multiplying the human intellect beyond part conceptions and have tremendous implications for education. ICT plays a very important role in making education really interesting.

In this 21<sup>st</sup> century, there is a fast changing in the classroom interaction. Today's education field is technically and modernized. Education has become more expanding and impressive with the use of internet. Due to internet, a new direction is shown to the education field. Keeping these things in mind, the investigator of the present study would like to frame a study on the Impact of ICT modules in teaching learning process.

## Scope of the study:

The main scope is finding the impact of ICT in mathematics among High School Students. The investigator hopes that the findings of this will provide certain concrete suggestions to the students about ICT. It is also concerned with the quality of education.

## Objectives:

1. To find out the significant difference between the mean scores of Experimental group which is exposed to the ICT method and control group which is taught through the conventional talk & chalk method for IX standard students in their pre test for intelligence in mathematics.
2. To find out the significant difference between the mean scores of Experimental group which is exposed to the ICT method and control group which is taught through the conventional talk & chalk method for IX standard students in their pre test for achievement in mathematics.
3. To find out the significant difference between the mean scores of Experimental group which is exposed to the ICT method and control group which

is taught through the conventional talk & chalk method for IX standard students in their post test for intelligence in mathematics.

4. To find out the significant difference between the mean scores of Experimental group which is exposed to the ICT method and control group which is taught through the conventional talk & chalk method for IX standard students in their post test for achievement in mathematics.
5. To find out signification correlation between the post-test scores in intelligence and achievement in ICT method.

## Hypotheses:

1. There is no significant difference between the mean scores of Experimental group which is exposed to the ICT method and control group which is taught through the conventional talk & chalk method for IX standard students in their pre test for intelligence in mathematics.
2. There is no significant difference between the mean scores of Experimental group which is exposed to the Ict method and control group which is taught through the conventional talk & chalk method for IX standard students in their pre test for achievement in mathematics
3. There is no significant difference between the mean scores of Experimental group which is exposed to the ICT method and control group which is taught through the conventional talk & chalk method for IX standard students in their post test for intelligence in mathematics.
4. There is no significant difference between the mean scores of Experimental group which is exposed to the ICT method and control group which is taught through the conventional talk & chalk method for IX standard students in their post test for achievement in mathematics.
5. There is no signification correlation between the post-test scores in intelligence and achievement in ICT method.

## Sample:

According to GOODE & HAT (1952) "A sample is smaller representation of the larger whole". In the present study 40 higher secondary school students have been selected as sample.

## Statistical Techniques Used:

Suitable statistical techniques were used in the interpretation of the data to test various hypotheses such as mean, Pooled Standard deviation, t-values and corre-

lation analysis.

#### Limitations of the Study:

- The study is limited to Trichy district only.
- Limited variables were assumed for this investigation.
- Sample size confined to 40 higher secondary school students.

#### RESULT AND DISCUSSION:

**Table 1**

**The mean, S.D, 't' value of Experimental group which is exposed to the developed ICT modules and control group which is taught through the conventional talk & chalk method for IX standard students for Intelligence and achievement in mathematics.**

Variables	Group	N	Mean	SD	't' Value
Intelligence	Pre-test Experimental Group	20	4	1.86	0.24
	Pre-test Control Group	20	3.35	1.63	
	Post-test Experimental Group	20	16.30	1.83	3.83
	Post-test Control Group	20	11.50	1.79	
Achievement	Pre-test Experimental Group	20	4.15	2.27	0.38*
	Pre-test Control Group	20	3.55	2.06	
	Post-test Experimental Group	20	16.30	2.07	2.56
	Post-test Control Group	20	13.25	1.94	

\*Not significant at 0.05 level.

The Mean, SD, t-values of Intelligence and achievement were tabulated in table 1. The pre test scores of Intelligence and achievement are not significant. Hence the null hypotheses framed on these variables are accepted. The post test scores of intelligence and achievement are significant. Hence the null hypotheses framed on these variables are not accepted.

**Table 2**  
**Relationship between Creativity and Achievement**

Variables	N	'r'	p value
Intelligence	20	0.38	0.26
Achievement	20		

Significant at 0.05 level

The calculated value of 'r' 0.38 is more than the table value of 'p' 0.26 at 0.05 level of significance. Since the 'r' value is moderate, it is concluded that there is a moderate relationship between the post-test scores in intelligence and achievement which are exposed to the developed ICT modules.

#### CONCLUSION:

- In this study, an attempt has been made find out impact on Ict learning on intelligence and achievement in mathematics for the pupils studying at high school level and it was found to be overall effective than the conventional talk and chalk method. The pre test scores of creativity and achievement are not significant.
- The post test scores of intelligence and achievement are significant.
- There is a moderate relationship between the post-test scores in intelligence and achievement which are exposed to the developed ICT modules.

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